

IN THE CLAIMS

1. (previously amended) An improved golf club fitting system for fitting a set of golf clubs to a player comprising the steps:

measuring a player's physical dimensions at least including grip strength of the player's hand;

selecting a representative golf club having a specific dead weight based on the measured grip strength of the player's hand, said dead weight being directly proportional to the player's grip strength, specifically that the dead weight of the golf club is greater when the player's grip strength is greater and vice versa;

recording the club length of the representative golf club;

determining the swing weight of the representative golf club;

computing a balance index (BI) for the representative golf club by dividing the dead weight (DW) by the numerical value of the swing weight (SW) ( $DW/SW = BI$ ); and

using ~~comparing~~ said balance index (BI) determined for the representative golf club to determine alternatively the head heavy and head light deviation for the representative golf club; and

generally corresponding balance index and dead weight values determined for said representative golf club to at least some of the other golf clubs in a set of golf clubs such that the system user can generally match different iron and wood golf clubs to the representative golf club thereby creating a generally ideal matched set of golf clubs for the player.

2. (previously amended) The improved golf club fitting system of claim 1 further

1 comprising the step of conducting a player profile interview with a player to collect player  
2 information at least including physical limitations, right/left hand player, current playing ability,  
3 player's interpretation of their game and the player's goals for their game and the fitting session.  
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5       3.       (original)       The improved golf club fitting system of claim 1 wherein said step of  
6 measuring a player's physical dimensions further comprises measuring at least the player's middle  
7 finger length, palm-to-wrist crease length, grip strength, player's height, ground to palm distance and  
8 ground to knuckle of player's longest finger.  
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10       4.       (canceled).  
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12       5.       (original)       The improved golf club fitting system of claim 1 further comprising  
13 the step of determining the preferred club head and club shaft configuration for the player at least  
14 factoring recommended shaft length taken from applicable fitting chart, shaft material options  
15 available, adjustments due to player flexibility, swing tempo, and shaft loading effects and additional  
16 grip weight due to size recommendations.  
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18       6.       (original)       The improved golf club fitting system of claim 1 wherein said step of  
19 selecting a representative golf club comprises selecting a test golf club having a determined dead  
20 weight, swing weight and balance, said determined dead weight, swing weight and balance  
21 calculated via said determining step, said test golf club having a club head including adjustable  
22 weighting means and adjustable weight positioning means, said test golf club further having shaft  
23 length adjustment means such that the weight and balance of said club head of said test golf club and  
24 the length of said shaft of said test golf club are adjustable to fit the player's determined swing  
25 characteristics.  
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27       7.       (previously canceled).  
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1           **8.**       (previously amended) The improved golf club fitting system of claim **5** wherein the  
2 shaft length and the head weight of said test golf club is adjustable via a plurality of shaft extensions  
3 which are designed to releasably connect to the top end of the test golf club and are made in a series  
4 of progressively lengthened units such as the one-inch extension and the one and one-half inch  
5 extension, said head weights adapted to be releasably mounted into the club head of the test golf  
6 club, said head weights being in progressively heavier units such as the ¼ ounce weight and the ½  
7 ounce weight such that the precise weight and shaft length for said test golf club can be set so that  
8 the player and fitter can determine the best fitting club for the player by finding the best fit shaft  
9 length and dead weight for the best fitting club and use the resulting balance index and dead weight  
10 figures to fit the rest of the desired set.

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12           **9.**       (original)       The improved golf club fitting system of claim **1** further comprising  
13 the step of providing an adjustable lie board including a base plate on which is pivotably mounted  
14 a lie plate which is angle and attitude adjustable relative to said base plate, an angle readout device  
15 mounted on said base plate adjacent said lie plate operative to permit reading of the angle of said lie  
16 plate relative to said base plate, said adjustable lie board enabling use of said representative golf club  
17 during the angle determination section of the fitting process, with angle changes being made via said  
18 adjustable lie board instead of through the use of multiple test clubs with slightly different club head  
19 angles.

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21           **10.**     (original)       The improved golf club fitting system of claim **8** further comprising  
22 the steps of placing marking tape on the sole of the club head of said representative golf club, having  
23 the player hit at least one shot off of said lie plate of said adjustable lie board, recording the position  
24 of the impact mark on said marking tape via said hitting of at least one shot, adjusting the angle of  
25 said lie plate relative to said base to bring the angle of said lie plate into general alignment with the  
26 angle of the player's swing and repeating said hitting, recording and adjusting steps until the impact  
27 mark on said marking tape is generally centered on the club sole in relation to the heel and toe of the  
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club head of said representative golf club.

11. (previously canceled).

12. (previously canceled).

13. (previously amended) An improved golf club fitting system for fitting a set of golf clubs to a player comprising the steps:

measuring a player's physical dimensions at least including grip strength of the player's hand;

selecting a representative golf club having a specific dead weight based on the measured grip strength of the player's hand; said dead weight being directly proportional to the player's grip strength, specifically that the dead weight of the golf club is greater when the player's grip strength is greater and vice versa;

recording the club length of the representative golf club;

determining the swing weight of the representative golf club;

computing a balance index (BI) for the representative golf club by dividing the dead weight (DW) by the numerical value of the swing weight (SW) ( $DW/SW = BI$ );

using said balance index (BI) determined for the representative golf club to determine alternatively the head heavy and head light deviation for the representative golf club; and

generally corresponding balance index and dead weight values determined for said representative

1 golf club to at least some of the other golf clubs in a set of golf clubs such that the system  
2 user can generally match different iron and wood golf clubs to the representative golf club  
3 thereby creating a generally ideal matched set of golf clubs for the player;

4  
5 providing an adjustable lie board including a base plate on which is pivotably mounted a lie plate  
6 which is angle and attitude adjustable relative to said base plate, an angle readout device  
7 mounted on said base plate adjacent said lie plate operative to permit reading of the angle of  
8 said lie plate relative to said base plate, said adjustable lie board enabling use of said  
9 representative golf club during the angle determination section of the fitting process, with  
10 angle changes being made via said adjustable lie board instead of through the use of multiple  
11 test clubs with slightly different club head angles;

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13 placing marking tape on the sole of the club head of said representative golf club;

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15 having the player hit at least one shot off of said lie plate of said adjustable lie board;

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17 recording the position of the impact mark on said marking tape via said hitting of at least one shot;

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19 adjusting the angle of said lie plate relative to said base to bring the angle of said lie plate into  
20 general alignment with the angle of the player's swing; and

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22 repeating said hitting, recording and adjusting steps until the impact mark on said marking tape is  
23 generally centered on the club sole in relation to the heel and toe of the club head of said  
24 representative golf club.

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26 **14.** (previously amended) An improved golf club fitting system for fitting a set of golf  
27 clubs to a player comprising the steps:

1 measuring a player's physical dimensions at least including grip strength of the player's hand;

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3 selecting a representative golf club having a specific dead weight based on the measured grip  
4 strength of the player's hand; said dead weight being directly proportional to the player's grip  
5 strength, specifically that the dead weight of the golf club is greater when the player's grip  
6 strength is greater and vice versa, said representative golf club comprising a test golf club  
7 having a determined dead weight, swing weight and balance, said determined dead weight,  
8 swing weight and balance calculated via said determining step, said test golf club having a  
9 club head including adjustable weighting means and adjustable weight positioning means,  
10 said test golf club further having shaft length adjustment means such that the weight and  
11 balance of said club head of said test golf club and the length of said shaft of said test golf  
12 club are adjustable to fit the player's determined swing characteristics;

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14 providing a plurality of shaft extensions and a plurality of head weights for said test golf club, said  
15 plurality of shaft extensions adapted to releasably connect to the top end of the test golf club  
16 and which are made in a series of progressively lengthened units such as the one-inch  
17 extension and the one and one-half inch extension, said head weights adapted to be  
18 releasably mounted into the club head of the test golf club, said head weights being in  
19 progressively heavier units such as the ¼ ounce weight and the ½ ounce weight such that the  
20 precise weight and shaft length for said test golf club can be set so that the player and fitter  
21 can determine the best fitting club for the player by finding the best fit shaft length and dead  
22 weight for the best fitting club and use the resulting balance index and dead weight figures  
23 to fit the rest of the desired set;

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25 computing a balance index (BI) for the representative golf club by dividing the dead weight (DW)  
26 by the numerical value of the swing weight (SW) ( $DW/SW = BI$ ); and  
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1 using said balance index (BI) determined for the representative golf club to determine alternatively  
2 the head heavy and head light deviation for the representative golf club; and  
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4 generally corresponding balance index and dead weight values determined for said representative  
5 golf club to ~~for~~ at least some of the other golf clubs in a set of golf clubs such that the system  
6 user can generally match different iron and wood golf clubs to the representative golf club  
7 thereby creating a generally ideal matched set of golf clubs for the player.  
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